The opinion in support of the decision being entered today was <u>not</u> written for publication in a law journal and is <u>not</u> binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

and SUSANNE BIRKEL

Appeal No. 1998-3217 Application No. 08/536,236

ON BRIEF

Before KIMLIN, WARREN and TIMM, <u>Administrative Patent Judges</u>.

KIMLIN, <u>Administrative Patent Judge</u>.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-13, 16 and 20. Claims 17-19 and 21, the other claims remaining in the present application, have been allowed by the examiner. Claim 1 is illustrative:

1. An ink for ink jet printing, comprising submicron-sized particles in a liquid vehicle, said particles

comprising a colorant dispersed in an emulsifiable polymer resin, wherein said ink has a surface tension of from about 20 to about 70 dynes/cm and a viscosity of from about 0.7 to about 15 cP at 25EC.

The examiner relies upon the following references as evidence of obviousness:

Dexter et al. (Dexter)	4,074,284	Feb. 14, 1978
Kyser et al. (Kyser)	4,183,031	Jan. 8, 1980
Nealy et al. (Nealy)	4,855,344	Aug. 8, 1989
Sacripante et al.	6,025,412	Feb. 15, 2000
(Sacripante)		(filed Sep. 29, 1985)

Kenneth R. Barton, "Sulfopolyesters: New Resins for Water-Based Inks, Overprint Lacquers, and Primers," <u>American Ink Maker</u> 70-72 (Oct. 1993)

Appellants' claimed invention is directed to an ink for an ink jet printing process. The ink comprises colored particles dispersed in an emulsifiable polymer resin. Also, the ink has the recited surface tension and viscosity.

Appellants submit the following two groups of claims at page 4 of the principal brief: (I) claims 1-13 and 16; and (II) claim 20. Accordingly, claims 2-13 and 16 stand or fall together with claim 1.

Appealed claims 1-13, 15, 16 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Nealy. Claims 1-7, 10, 12 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Barton. In addition, claims 1-13, 16 and 20

stand rejected under 35 U.S.C. § 103 as being unpatentable over Nealy in view of Kyser or Dexter.¹

We have thoroughly reviewed each of appellants' arguments for patentability. However, we concur with the examiner that the claimed subject matter would have been <u>prima facie</u> obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the examiner's rejections.

There is no dispute that both Nealy and Barton disclose inks for various printing processes comprising the presently claimed particles comprising a colorant dispersed in an emulsifiable polymer resin which are dispersed in a liquid vehicle. It is appellants' position that neither Nealy nor Barton discloses inks having a surface tension and viscosity within the claimed ranges. However, inasmuch as Nealy and Barton disclose that the inks can be used in a wide variety of printing processes, we find that it would have been prima facie obvious for one of ordinary skill in the art to resort

¹ Since the rejection of the appealed claims over Nealy, alone, is subsumed by the rejection of the appealed claims over Nealy in view of Kyser or Dexter, we will focus upon the rejection over Nealy in view of Kyser or Dexter.

to nothing more than routine experimentation to determine the surface tension and viscosity for the ink that is suitable for ink jet printing. In re Aller, 220 F.2d 454, 456, 105 USPO 233, 235 (CCPA 1955). While appellants stress that Nealy and Barton do not teach or suggest the claimed surface tension and viscosity for the disclosed inks, appellants have not explained why one of ordinary skill in the art would not have found it obvious to modify the inks of Nealy and Barton with respect to surface tension and viscosity to make them amenable for ink jet printing. Furthermore, as pointed out by the examiner, Kyser and Dexter disclose that typical parameters for ink jet printing inks are a viscosity of 6 cP and a surface tension of 50 dyne/cm, which values fall directly within the claimed ranges. Accordingly, since values for viscosity and surface tension within the claimed ranges are described as typical for ink jet printing inks, we agree with the examiner that it would have been prima facie obvious for one of ordinary skill in the art to formulate the inks of Nealy and Barton in accordance with such viscosities and surface tension. While appellants maintain that "the secondary references of Kyser and Dexter are directed to

different ink jet inks" (sentence bridging pages 4 and 5 of Reply Brief), appellants fail to explain just what, in fact, are the differences between the inks of Nealy and Barton and the inks which one of ordinary skill in the art would typically employ in the ink jet processes of Kyser and Dexter. Appellants have offered no convincing reasoning or objective evidence which details why it would have been unobvious for one of ordinary skill in the art to employ the inks of Nealy and Barton, with appropriate modifications, in an ink jet printing process.

One final point remains. U.S. Patent No. 6,025,412 claims an ink jet for ink jet printing having the presently claimed surface tension and viscosity and comprises colored particles dispersed in a liquid vehicle wherein the colored particles comprise a dye chemically bonded to an emulsifiable polymer resin. Accordingly, this application is remanded to the examiner to consider a double patenting rejection of allowed claims 17-19 and 21 over the claims of U.S. Patent No. 6,025,412. Further-more, in the event of further prosecution of the subject matter at bar, the examiner should consider such double patenting rejections over the appealed claims.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is affirmed. Also, the application is remanded to the examiner for the reasons set forth above.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR $\S 1.136(a)$.

This application, by virtue of its "special" status, requires immediate action by the examiner. See the Manual of Patent Examining Procedure, § 708.01(D) (7th ed., Rev. 1, Feb. 2000). It is important that the Board of Patent Appeals and Interferences be informed promptly of any action affecting the appeal in this case.

AFFIRMED AND REMANDED

EDWARD C. KIMLIN Administrative Patent	Judge))
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CHARLES F. WARREN	_ ,) BOARD OF PATENT
Administrative Patent	Judge) APPEALS AND
) INTERFERENCES
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CATHERINE TIMM
Administrative Patent Judge

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